



DEPARTMENT OF DEFENSE

# AUDIT REPORT

AUTOMATED DATA PROCESSING SUPPORT OF INVESTIGATIVE AND  
SECURITY MISSIONS AT THE DEFENSE INVESTIGATIVE SERVICE

No. 90-051

March 29, 1990

*Office of the  
Inspector General*



## Form SF298 Citation Data

<b>Report Date</b> <i>("DD MON YYYY")</i> 29Mar1990	<b>Report Type</b> N/A	<b>Dates Covered (from... to)</b> <i>("DD MON YYYY")</i>
<b>Title and Subtitle</b> Automated Data Processing Support of Investigation and Security Missions at the Defense Investigative Service		<b>Contract or Grant Number</b>
<b>Authors</b>		<b>Program Element Number</b>
<b>Performing Organization Name(s) and Address(es)</b> OAIG-AUD (ATTN: AFTS Audit Suggestions) Inspector General, Department of Defense 400 Army Navy Drive (Room 801) Arlington, VA 22202-2884		<b>Project Number</b>
<b>Sponsoring/Monitoring Agency Name(s) and Address(es)</b>		<b>Task Number</b>
<b>Distribution/Availability Statement</b> Approved for public release, distribution unlimited		<b>Work Unit Number</b>
<b>Supplementary Notes</b>		<b>Performing Organization Number(s)</b> 90-051
		<b>Monitoring Agency Acronym</b>
		<b>Monitoring Agency Report Number(s)</b>

**Abstract**

This is our final report on the Audit of Automated Data Processing Support of Investigative and Security Missions at the Defense Investigative Service for your information and use. Comments on a draft of this report were considered in preparing the final report. The audit was made from May through October 1989. The objectives of the audit were to determine if the Defense Investigative Service (DIS) was effectively managing automated data processing software and hardware acquisition and operations that support its investigative and industrial security programs; to determine if DIS was complying with all automated data processing DOD Directives, OMB guidance, and DIS regulations; and to evaluate the internal controls applicable to automated data processing acquisition and operations. DIS' FY 1989 budget for automated information systems was about \$13 million. Overall, the audit showed that DIS was adequately contracting for automated data processing hardware and software, and that during the past several years DIS has begun to develop and acquire automated information systems to improve the effectiveness of automated data processing operations. However, DIS did not adequately plan for the development and acquisition of automated information systems and funds were unnecessarily spent for automated information systems that were not needed and never used. Also, DIS had not established adequate internal controls to implement life-cycle management requirements for automated information systems. The results of the audit are summarized in the following paragraphs, and the details, audit recommendations, and management comments are in Part II of this report.

**Subject Terms**

**Document Classification**  
unclassified

**Classification of SF298**  
unclassified

**Classification of Abstract**  
unclassified

**Limitation of Abstract**  
unlimited

**Number of Pages**  
32



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**DEPARTMENT OF DEFENSE**  
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**ARLINGTON, VIRGINIA 22202-2884**

March 29, 1990

**MEMORANDUM FOR DIRECTOR, DEFENSE INVESTIGATIVE SERVICE**

**SUBJECT: Final Audit Report on Automated Data Processing Support of Investigative and Security Missions at the Defense Investigative Service (Report No. 90-051)**

This is our final report on the Audit of Automated Data Processing Support of Investigative and Security Missions at the Defense Investigative Service for your information and use. Comments on a draft of this report were considered in preparing the final report. The audit was made from May through October 1989. The objectives of the audit were to determine if the Defense Investigative Service (DIS) was effectively managing automated data processing software and hardware acquisition and operations that support its investigative and industrial security programs; to determine if DIS was complying with all automated data processing DoD Directives, OMB guidance, and DIS regulations; and to evaluate the internal controls applicable to automated data processing acquisition and operations. DIS' FY 1989 budget for automated information systems was about \$13 million.

Overall, the audit showed that DIS was adequately contracting for automated data processing hardware and software, and that during the past several years DIS has begun to develop and acquire automated information systems to improve the effectiveness of automated data processing operations. However, DIS did not adequately plan for the development and acquisition of automated information systems and funds were unnecessarily spent for automated information systems that were not needed and never used. Also, DIS had not established adequate internal controls to implement life-cycle management requirements for automated information systems. The results of the audit are summarized in the following paragraphs, and the details, audit recommendations, and management comments are in Part II of this report.

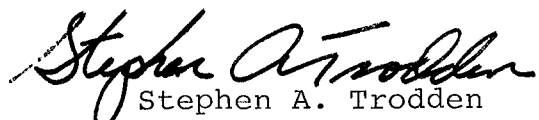
The audit showed that DIS had not adequately planned for automated information systems development and acquisition that support its investigative and industrial security programs. This could result in delays of almost 3 years in fully implementing an automated information system that could improve DIS' efficiency and effectiveness. In addition, DIS unnecessarily spent \$222,000 for two mini-computers that did not meet its automated information system requirements and therefore, were not used. We recommended that DIS establish review and approval procedures for automated information systems development and acquisition to

fully implement life-cycle management requirements outlined in DoD regulatory guidance. We recommended that DIS establish a viable life-cycle management training program for automated data processing personnel, prepare required life-cycle management documents for new systems being developed, and excess unused automated data processing equipment. We also recommended that DIS determine and request the required personnel billets for the development of future DIS automated information system initiatives (page 5).

The audit identified internal control weaknesses as defined by Public Law 97-255, Office of Management and Budget Circular A-123, and DoD Directive 5010.38. Controls were not established to ensure compliance with DoD regulatory guidance concerning requirements for life-cycle management procedures and documentation. Recommendations 1. and 6. in this report, if implemented, will correct the weaknesses. We could not determine the monetary benefits to be realized by implementing Recommendations 1. and 6 (See Appendix C). A copy of this report will be provided to the senior official responsible for internal controls within DIS. This report should be considered during the preparation of the DIS annual internal control statement of assurance.

A draft of this report was provided to the Director, Defense Investigative Service, on December 28, 1989. Management comments were received from DIS on February 28, 1990. The management comments are summarized in Part II of this report and the complete text is provided in Appendix B. Management concurred with the finding and with all recommendations and provided estimated completion dates for planned corrective actions. The management comments to a draft of this report conformed to the provisions of DoD Directive 7650.3. No unresolved issues exist on the audit recommendations and internal control deficiencies. Accordingly, additional management comments on the final report are not required. This report identifies no quantifiable monetary benefits.

The cooperation and courtesies extended the auditors during the audit are appreciated. The audit team members are listed in Appendix E. Please contact Ms. Kathleen M. Stanley, Program Director, at 693-0551 (AUTOVON 223-0551) or Mr. Ronald M. Nelson, Project Manager, at 693-0543 (AUTOVON 223-0543) if you have any questions concerning the report. Copies of this report are being provided to the activities listed in Appendix F.

  
Stephen A. Trodden  
Assistant Inspector General  
for Auditing

REPORT ON THE AUDIT OF  
AUTOMATED DATA PROCESSING SUPPORT  
OF INVESTIGATIVE AND SECURITY MISSIONS AT  
THE DEFENSE INVESTIGATIVE SERVICE

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Prepared by:  
Acquisition Management  
Directorate  
Project No. 9ME-0042



REPORT ON THE AUDIT OF  
AUTOMATED DATA PROCESSING SUPPORT  
OF INVESTIGATIVE AND SECURITY MISSIONS AT  
THE DEFENSE INVESTIGATIVE SERVICE

PART I - INTRODUCTION

Background

The Defense Investigative Service (DIS) is under the authority, direction, and control of the Under Secretary of Defense for Policy. The Secretary of Defense established DIS in April 1972 under DoD Directive 5105.42 to provide a centrally directed personnel security investigation service for DoD Components and contractors, and to conduct inspections of Government and contractor facilities. DIS provides the personnel security investigation service through its Personnel Investigative Center, and processes security clearances for contractor personnel through its Defense Industrial Security Clearance Office. DIS also conducts inspections of contractor facilities through its regional offices.

During FY 1989, DIS employed approximately 4,000 personnel and had a budget of \$164 million, of which \$13 million was for automated information systems. As early as 1982, DIS began to improve its operations by developing and acquiring automated information systems to support its investigative and industrial missions. The automated information systems that support its investigative mission are the Defense Central Index of Investigations, the Joint Adjudication Clearance System, the Defense Integrated Management System, and the DIS Network. The Larsen and Mead automated information systems support DIS' Industrial Security Mission. The proposed SUPRA data base management system will support DIS investigative and industrial security missions. A description of each system is provided in Appendix A.

Objectives and Scope

The objectives of the audit were to determine if DIS was effectively managing automated data processing software and hardware acquisition and operations that support its investigative and industrial security programs; to determine if DIS was complying with all automated data processing related DoD Directives, OMB guidance, and DIS regulations; and to evaluate the internal controls applicable to automated data processing acquisition and operation.

We evaluated DIS' compliance with laws and regulations pertaining to automated data processing development and acquisition. We



reviewed automated data processing hardware and software justification and approval documents, contract files, payment and accounting records, budget reports, and automated data processing hardware inventories covering the period from February 1981 through October 1989. We did not specifically evaluate DIS' effectiveness in managing automated data processing operations because during the past several years DIS has begun to develop and acquire automated information systems to improve the effectiveness of automated data processing operations. However, we evaluated maintenance records and the security of automated data processing hardware and software. We did not find any significant deficiencies in this area. Also, we found no significant deficiencies in contracting for automated data processing hardware and software. Activities visited or contacted are listed in Appendix D. This economy and efficiency audit was made in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD, and accordingly, included such tests of internal controls as were considered necessary. The audit was conducted from May to October 1989.

#### Internal Controls

The internal controls applicable to automated data processing hardware and software acquisition were not effective. DIS had not developed management control objectives and control techniques of internal controls, or assessed internal controls applicable to the acquisition of automated data processing hardware and software. However, DIS completed assessments of internal controls at the Information System Center and established a formal internal control followup system. Therefore, the internal controls applicable to automated data processing operations were deemed effective in that no deficiencies were disclosed in the audit. However, an internal control weakness was found in DIS' implementation of DoD guidance to plan for the development and acquisition (excluding contracting operations) of automated information systems. This is discussed in Part II of the report.

#### Prior Audit Coverage

DoD Inspector General Report No. 89-007, "Report on the Fiscal Year 1988 Evaluation of the Federal Managers' Financial Integrity Act of 1982 at the Defense Investigative Service," October 17, 1988, and DoD Inspector General Report No. 88-012, "Report on the Fiscal Year 1987 Evaluation of the Federal Managers' Financial Integrity Act of 1982 at the Defense Investigative Service," October 7, 1987, contained no recommendations and stated that DIS was complying with the Federal Managers' Financial Integrity Act.

DoD Inspector General Report No. 87-032, "Report of Fiscal Year 1986 Evaluation of the Implementation of the Federal Managers' Financial Integrity Act of 1982 at the Defense Investigative Service," October 31, 1986, stated that DIS planned to report in its FY 1986 annual statement of assurance, to the Secretary of Defense, those same internal control weaknesses reported in the 1985 annual statement of assurance. We concluded that the FY 1986 annual statement to the Secretary of Defense showed that DIS was complying with the Federal Managers' Financial Integrity Act; therefore, the report did not contain any recommendations.

DoD Inspector General Report No. 86-034, "Report of Fiscal Year 1985 Evaluation of the Implementation of the Federal Managers' Financial Integrity Act of 1982 at the Defense Investigative Service," November 4, 1985, recommended that DIS assess automated data processing internal controls at the Information System Center using DoD automated data processing internal control guidelines. The report also recommended that DIS revise Defense Investigative Regulation Number 08-5, "Internal Management Control Program," to establish a formal follow-up system to correct weaknesses identified through the internal management process. DIS concurred with the recommendations and implemented corrective actions approximately 4 years later to include completing assessments of automated data processing internal controls at the Information Systems Center during April 1989 and revising Defense Investigative Regulation Number 08-5, "Internal Management Control Program," in July 1989 to establish a formal internal control follow-up system.

#### Prior Automated Data Processing Reviews

The DoD Manpower Data Center issued a study, "Organization and Operation of the Information Management Function within the Defense Investigative Service, Results of an On-site Review" on May 18, 1988. The study team consisted of contractor and Government representatives who recommended that the Information Systems Division be placed under the direct control of a new deputy director and that the operating instructions for that Division clearly state that it must service the entire organization and staff itself to accomplish its mission. DIS agreed and reorganized the Information Systems Division under a deputy director for Information Systems and Planning with the assigned responsibility for supporting DIS overall missions. The DoD Manpower Data Center study also recommended that DIS develop a long-term planning document delineating the functional requirements of automated information systems. DIS partially agreed, and developed a 2-year plan, "DIS Information Systems Plan," in January 1989.

The Deputy Under Secretary of Defense for Policy, in coordination with the Deputy Assistant Secretary of Defense for

Administration, issued a report, "Defense Investigative Service Information Systems Review - A Report to the Defense Resources Board," in December 1987. The Deputy Under Secretary of Defense for Policy recommended that DIS' unfunded automated data processing initiatives be funded for the program period FY 1988 through FY 1992. The Defense Resources Board initiated corrective action and funded DIS automated data processing initiatives for FY 1989 and FY 1990, and additional funding has been programmed for FY 1991 and FY 1992.

DoD Inspector General Inspection Report, "Inspection of the Defense Investigative Service," July 16, 1985, identified three issues related to automated information systems in support of DIS investigative and industrial security missions. The first issue was that DIS should explore creative methods of conducting investigations to allow it to continue meeting requirements (methods include automation). DIS corrected this problem by funding automated data processing initiatives for the program period FY 1989 through FY 1990. The second issue was that DIS should establish an effective centralized DoD index of clearance actions for all DoD Components to use. DIS reprogrammed the Defense Central Index of Investigations to implement this function. The Defense Central Index of Investigation will provide a central index of all DoD clearance actions for all DoD Components to use. The last issue was that automation within DIS was unsatisfactory in life-cycle management, contingency operations planning, and security; however, efficient and effective use of automated data processing equipment could reduce backlogs and mechanize manual tasks. To correct these problems DIS recently initiated the development of policy and procedural guidance to implement necessary life-cycle management requirements. Also, DIS developed and implemented SUPRA and Defense Investigative Service Network to improve the operation of DIS' investigative and security programs through automation. However, DIS has not finalized a Continuity of Operations Plan to ensure that DIS could continue to operate if a major accident occurs, such as a fire or flood in the computer center located at the Personnel Investigations Center.

## PART II - FINDING AND RECOMMENDATIONS

### Planning for Automated Information System Development and Acquisition

#### FINDING

DIS had not adequately planned for automated information system development and acquisition that support its investigative and industrial security programs. This occurred because DIS had not established review and approval procedures or a control process to fully implement life-cycle management requirements. In addition, DIS had not provided automated data processing personnel adequate training in life-cycle management methods and practices, and it had limited resources. As a result, DIS could experience delays of almost 3 years in developing an automated information system that could improve its efficiency and effectiveness. Also, DIS unnecessarily spent \$222,000 for two mini-computers that it did not need and never used.

#### DISCUSSION OF DETAILS

DoD Guidance. DoD Directive (DoDD) 7920.1, "Life-Cycle Management of Automated Information Systems (AISs)," June 20, 1988, applies the principles of life-cycle management to major and nonmajor automated information systems. <sup>1/</sup> Life-cycle management of an automated information system is a control of expenditures on new automated information systems and of expenditures on the modernization of existing automated information systems. DoDD 7920.1 requires that the sponsoring DoD Component develop and implement review and milestone approval procedures for nonmajor automated information system development or modernization. The six life-cycle management phases of an automated information system are needs justification, concepts development, design, development, deployment, and operations. DoDD 7920.1 also requires that DoD Components provide management oversight and control of expenditures for new automated information systems and the modernization of existing automated information systems to ensure that the desired benefits of the system are achieved. In addition, DoDD 7920.1 requires the preparation of principal life-cycle management documents when planning for the development or modernization of an automated information system. These documents include a mission need

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<sup>1/</sup> A nonmajor automated information system does not have anticipated program costs from justification through deployment in excess of \$100 million, or estimated program costs in excess of \$25 million in any single year, or is not designated as being of special interest by the Office of the Secretary of Defense.

statement, a functional requirements document, a programming resource justification (budget), and a comprehensive implementation plan.

DIS Automated Information Systems Guidance. DIS has issued general life-cycle management policy and criteria, but has done relatively little to ensure that the policy and procedures were in compliance with DoDD 7920.1. DIS developed DIS Regulation 21-5, "Selection and Acquisition of Automatic Data Processing Resources," dated August 24, 1988, which designated the Deputy Director, Information Systems and Planning as the senior automated data processing policy official. The responsibility of this official includes selection and acquisition of all automated data processing resources within DIS, to include hardware and software and necessary contractor support. However, DIS Regulation 21-5 does not provide any guidance for planning, prioritizing, reviewing or approving the selection of automated data processing equipment.

DIS also developed DIS Operating Instruction Number 34, "Life-Cycle Management," May 12, 1988, which established life-cycle standards for automated information systems within DIS. This instruction outlines general criteria to be used to determine if life-cycle management controls would be applicable to the development of proposed automated information systems. However, DIS Operating Instruction Number 34 does not provide detailed operating instructions or procedures implementing life-cycle management requirements outlined in DoDD 7920.1. For example, this guidance does not provide for a review and approval process for automated information system development and acquisition, which would ensure that management decisions and related expenditures are based on the anticipated benefits of a system. Although DIS established an ADP Steering Committee, consisting of the DIS Director and various functional managers, to review and approve the development of DIS automated information systems, this committee has never been given an official charter and has not adequately functioned in its intended capacity. The ADP Steering Committee should be an integral part of an established review and approval process.

At the completion of our audit, DIS had begun developing an internal instruction outlining standard procedures to implement life-cycle management requirements as prescribed by DoDD 7920.1, which were not included in DIS Regulation 21-5 or in DIS Operating Instruction Number 34. This draft internal instruction should provide standard procedures for the development and acquisition of DIS automated information systems.

DIS Automated Information Systems. DIS developed three automated information systems to improve its efficiency and effectiveness. First was SUPRA, a data base management system

that integrated operational, investigative and industrial data into an agency-wide data base. Second was the Defense Investigative Service Network, a system of micro-computers with word processing and communications capabilities that was used to transmit completed reports of personnel investigations. Third was the Electronic Transmission Program, a telecommunications system that was used to automate the contractor personnel security clearance process. Detailed discussions of each automated information system follow.

Data Base Management System. In April 1987, DIS installed a data base management system called SUPRA. SUPRA Version 1 integrated all operational investigative and industrial data normally held in separate master files into an agency-wide data base. This data base consolidated the master files of the Defense Integrated Management System, the Defense Central Index of Investigations, the Joint Adjudication Clearance System, Larsen, and Mead. Each operational system was functionally redesigned, rewritten, and expanded into SUPRA costing DIS an estimated \$427,000 (costs for reprogramming the Defense Integrated Management System and Mead into SUPRA have not been determined). DIS planned to replace the Defense Integrated Management System with the Case Control Management System when the system was transferred to SUPRA. SUPRA's acquisition and development costs were estimated at \$2.04 million (excluding the \$427,000 reprogramming costs) from FY 1987 through FY 1994. The introduction of SUPRA into DIS' automated operations could provide intangible benefits that would increase the efficiency and effectiveness of DIS' investigative and industrial missions. Potential benefits of the system included centralized availability of data; file expansion without mass changes; data redundancy reduction; a data dictionary that defined data elements and their meanings; a higher level language that allowed simplified programming and maintenance; a relational database; ad hoc query capability, which more easily addressed requests; and referential integrity of files, which allowed validity checks among different operational systems.

DIS planned to upgrade SUPRA by incorporating SUPRA Version 2. SUPRA Version 2 will provide DIS with the additional benefits of the American National Standards Institute structured query language required for DoD automated information systems; the ease of table generation; operation of the system on a 24-hour basis; a relational database; and the ease of maintenance of the system. DIS estimated that SUPRA Version 2 will cost \$141,730 including a \$21,000 installation fee, plus \$2,000 per month for additional maintenance costs. The \$141,730 is part of SUPRA's overall development costs of \$2.04 million.

DIS had not adequately planned SUPRA's development. Additionally, DIS had not developed the necessary life-cycle

management planning documents for SUPRA required by DoDD 7920.1. This documentation would have provided the justification for developing SUPRA; the functional requirements, including required hardware and software, of SUPRA; and the system design and total funding required for SUPRA. Although DIS had developed a data base management system implementation plan for SUPRA, dated September 1987, the plan was inadequate because it did not address the integration of multiple operational systems. This plan stated that implementation of an agency-wide data base management system would require a carefully developed plan covering multiple operational systems over several years. DIS had neither developed the detailed implementation plan for SUPRA nor complied with the life-cycle management requirements of DoDD 7920.1. DIS planned for all five of the operational systems to be incorporated into SUPRA by September 1989. However, DIS estimates showed delays of up to 3 years in making SUPRA fully operational. These delays were caused by the absence of functional requirements for the five operational systems and the sensitivity of the SUPRA project to other higher priority projects within DIS. The following table reflects the implementation dates for each of the five operational systems.

<u>System</u>	<u>Initial Date of Implementation</u>	<u>Revised Date of Implementation</u>	<u>Delay Months</u>
CCMS (DIMS) <u>1/</u>	March 1989	December 1991	33 <u>2/</u>
DCII <u>3/</u>	February 1989	November 1989	9
JACS <u>4/</u>	February 1989	September 1991	31
Larsen	October 1988	October 1990	24
Mead	September 1989	February 1992	29

1/ Case Control Management System (Defense Investigations Management System)

2/ CCMS development was on hold at the time of the audit.

3/ Defense Central Index of Investigation

4/ Joint Adjudication Clearance System

Also, DIS has not adequately planned for the procurement of the new central processing unit, which is crucial to fully implement SUPRA. DIS did not have sufficient hardware processing power and disk space for SUPRA or for any of the other major system enhancements. We found that DIS had conducted a life-cycle study for the acquisition of a new central processing unit, dated

April 1989, which stated that SUPRA would be the largest user, but the central processing unit would not be procured before March 1990. Therefore, although SUPRA was installed in 1987, it could not become fully operational until reprogramming of the five operational systems was complete and the new central processing unit was functional.

Defense Investigative Service Network. DIS installed Defense Investigative Service Network Phase 1 in September 1986 as an electronic telecommunications network that allowed for the one-way transmission of completed reports of investigations from DIS' field offices to the Personnel Investigations Center. Defense Investigative Service Network Phase 1 was fully operational in 1988. The one major benefit of Defense Investigative Service Network Phase 1 was that the network reduced the time necessary for investigative case completion. Development and acquisition costs for Defense Investigative Service Network Phase 1 were estimated to be \$4 million from FY 1986 to FY 1990 for hardware, software, and maintenance. DIS began developing the Defense Investigative Service Network concept in early 1980 and conducted a 6-month pilot study to test the theory. After the Defense Investigative Service Network concept was approved in June 1981, DIS developed a statement of requirements and an implementation cost estimate for the project. However, a mission need statement, a programming resource document, and an implementation plan were not developed for Defense Investigative Service Network.

In October 1986, DIS considered another concept and planned to initiate a pilot study to determine the feasibility for the electronic transmission of completed investigative case files from the field offices to its regional offices rather than to the Personnel Investigations Center. These consolidated investigative case files were to be processed at DIS regional offices and then transmitted from DIS regional offices to the Personnel Investigations Center through the Defense Data Network instead of Defense Investigative Service Network. DIS purchased a Canaan Corporation DCS 5800 mini-computer for \$62,000 from the Federal Technology Corporation to support this project. DIS initially planned to place the Canaan mini-computer in a regional office to test the concept of consolidated processing of investigative case files. However, the mini-computer was never used because DIS officials determined several months after its delivery that the mini-computer software and hardware did not work. DIS contracting office was able to get the Federal Technology Corporation to provide the correct software but it was unable to obtain the correct hardware because the Cannan Corporation went out of business. As a result, DIS could not conduct the pilot study and unnecessarily spent \$62,000 on a mini-computer that could not be used.



At the time of the audit, DIS was in the process of planning for the development and acquisition for Defense Investigative Service Network Phase 2, which will allow for two-way communication between DIS' field offices and the Personnel Investigations Center. Defense Investigative Service Network Phase 2 would continue to allow transmission of completed reports of investigation from the field offices, but would also allow the Personnel Investigations Center to transmit personnel security questionnaires and investigative case leads to the field offices. A project manager was assigned to Defense Investigative Service Network Phase 2, but system requirements (hardware, software, and funding) have not been determined for modernizing this system. DIS officials should incorporate life-cycle management procedures and controls when developing Defense Investigative Service Network Phase 2.

Electronic Transmission Program. In December 1984, DIS and the Aerospace Industries Association jointly proposed a pilot study to automate the contractor personnel security clearance process at the Defense Industrial Security Clearance Office. DIS conducted the study in two phases. Phase 1 began in January 1986 and involved using an IBM System 36 mini-computer, which was provided by IBM for trial testing at no cost to the Government. Personnel security questionnaires <sup>2/</sup> and Letters of Consent <sup>3/</sup> between the Defense Industrial Security Clearance Office and the contractors were electronically transmitted using the IBM System 36 instead of the U. S. Postal Service. Six Aerospace member contractors volunteered to participate in the study and in the on-line transmission.

In March 1987, DIS determined that the approach used in Phase 1 was not the best method to meet the requirements of the electronic transmission program and decided to use an electronic mail service instead. In March 1988, DIS contracted with Compuserve Incorporated and proceeded into Phase 2 to test the use of a telecommunication service to electronically transmit personnel security questionnaires. Phase 2 involved the same procedure as Phase 1 except that the personnel security questionnaire files were created on a personal computer located at the contractor's facility and transmitted to the Defense Industrial Security Clearance Office through a public data network. Using this method, DIS needed only a small personal computer instead of the IBM System 36.

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<sup>2/</sup> Personnel security questionnaire - clearance application form to request a clearance for contractor personnel.

<sup>3/</sup> Letter of Consent - document granting clearance for contractor personnel.

Even though the results of Phase 1 were already known in February 1987, DIS contracted for a similar mini-computer, IBM System 38, for about \$145,000. DIS officials initiated discussions with IBM to purchase IBM System 38 before the results of the pilot study were complete. The cost-free use of the IBM System 36 may have influenced DIS to buy an IBM system instead of considering other options. In our opinion, the DIS officials who initiated discussions with IBM for the purchase of an IBM System 38 acted hastily and did not involve the contracting officer in these discussions. As a result, there were strong indications that DIS officials made representations to IBM that could have been construed as a commitment to purchase IBM System 38. However, the system was not paid for or delivered until a contract was signed. Although the IBM System 38 was purchased, it was never used. In addition to the cost of the equipment (\$145,000), DIS spent about \$9,000 for site preparation and \$6,000 for a maintenance contract, a total of \$160,000.

DIS failed to follow DoD regulatory guidance for the acquisition of IBM System 38. DoDD 7920.1 requires complete planning, including life-cycle costs, prior to the development and acquisition of any automated system. Although DIS prepared a life-cycle plan it was not adequate and did not include complete program requirements and implementation plans. If DIS had developed and implemented adequate approval and review procedures for the acquisition of the automated data processing equipment, the proposed purchase of IBM System 38 would have been discussed and denied because the mini-computer was not needed to meet DIS' electronic transmission requirement. DIS looked for other ways to use the IBM System 38, but it was not successful. DoD Manual 7950.1M, "Defense Automation Resources Management Manual," specifies that excess automation equipment is to be returned to Defense Automation Resources Information Center. At the completion of our audit, October 1989, DIS had not contacted Defense Automation Resources Information Center to report the mini-computer as excess property.

Resources for Automated Information Systems. In its December 1987 study, the Office of the Deputy Under Secretary of Defense for Policy identified \$10.5 million in unfunded automated data processing requirements at DIS. This study was requested by the Defense Resources Board to identify how automated data processing enhancements and changed procedures could make DIS' investigative and industrial security missions more efficient and productive. The \$10.5 million was identified to complete automated data processing modernization goals planned for the 5-year period from FY 1988 through FY 1992. DIS did not receive any of the \$10.5 million in FY 1988; however, DIS did receive \$4.9 million in FY 1989. Of the \$4.9 million received, \$2.1 million was used for procurement of automated data

processing equipment and \$2.8 million was used for operations. DIS officials stated that \$2.1 million was used to procure a central processing unit upgrade (about \$1.8 million) and additional memory capacity for the unit (about \$300,000). The \$2.8 million was used for operation and maintenance of personal computers already on hand and for the procurement of a local area network. DIS plans to split the remaining \$5.6 million over a 3-year period on maintenance for the computers and the central processing unit. DIS received \$2.1 million for FY 1990, and the remaining \$3.5 million has been programmed for FY 1991 and FY 1992.

In June 1988, DIS reorganized the management structure, established the Information Systems and Planning Directorate at DIS Headquarters, and established new personnel authorizations for the Information Systems Center. At that time, the Information Systems Center's authorized personnel positions were reduced from 86 to 77. DIS officials conducted a study and issued an internal memorandum, "Anticipated Distribution of Personnel Authorizations," to assess the Information Systems Center's personnel posture. This study showed that of the 77 positions authorized, the Information Systems Center would have 12 vacancies by the end of June 1988 because of retirement and loss of personnel to other agencies. These staffing shortages could have weakened DIS' ability to fully implement life-cycle management requirements for the development of automated information systems. Further, DIS officials stated that of the 77 positions authorized, 8 would require life-cycle management training. DIS provided life-cycle management training for four information systems personnel, of which two have left the Agency. Also, DIS had seven positions authorized in the Information Systems and Planning Directorate. DIS officials stated that two of the seven positions would require life-cycle management training. As of October 31, 1989, DIS had not provided training for the two positions.

DIS needed to place more emphasis on personnel and life-cycle management training with the continued development of the SUPRA data base management system, Defense Investigative Service Network Phase 2, the Personnel Security Questionnaire Electronic Transmission Program, and the proposed development of new automated information systems, such as the Case Control Management System. If the number of people assigned to the Information Systems Center, as well as the life-cycle management training provided to the Information Systems Center and the Information Systems Planning Directorate, remain as they were during the audit, they will not be sufficient to manage the anticipated workload increase.

Development of Future Systems at DIS. Future plans for the development of automated information systems at DIS include developing the Case Control Management System, which will replace the Defense Integrated Management System in SUPRA. The Case Control Management System will be a data base oriented system that will automate redundant and manual case processing and control procedures. It will also provide investigative and management information in an electronic format.

At the time of the audit, the Case Control Management System was in the concept development phase. BDM Corporation completed a functional analysis of the system in May 1989 and the contractor estimated that it would take about 6 years to fully develop and implement the system. BDM Corporation also estimated that development costs for the Case Control Management System would total \$9 million including software development and hardware procurement. The Case Control Management System could provide DIS with potential benefits that include electronic interface with other automated systems, automatic update of information systems based on receipt of electronic data from requestors, electronic transmission of investigative case leads to the field offices and receipt of investigation reports from field offices, and automatic analysis of case data to determine when the cases are completed. The Case Control Management System could also maintain an electronic file copy of completed reports as well as produce copies of the completed reports for requestors.

At the end of our audit, DIS had placed the development of the Case Control Management System on hold. If DIS does continue developing the Case Control Management System, emphasis should be placed on ensuring that the system goes through a management review and approval process and that required life-cycle management controls and procedures are implemented.

Potential Monetary Benefits. DIS should develop alternative methods and avoid using the General Accounting Office's methodology in determining the monetary benefits that could be obtained if personnel security clearance processing was automated. The General Accounting Office determined in its September 15, 1981, report "Faster Processing of DoD Personnel Security Clearances Could Avoid Millions in Losses," that it cost the Government \$21 per day for each DoD employee that did not have access to classified information. The report also stated that it cost the Government \$43 per day for each contractor employee that did not have a clearance.

In 1987, the Under Secretary of Defense for Policy used the General Accounting Office's report to determine that the Government could potentially save approximately \$77.3 million if DIS developed the necessary automated information systems. DIS utilized this figure to compute monetary savings to the

Government as part of the basis for developing automated information systems that would be used to process clearances faster. DIS began the development of its automated information system initiatives but has yet to fully implement all of the automated initiatives, SUPRA and the Case Control Management System, that would induce proposed monetary benefits.

The General Accounting Office's methodology of computing monetary benefits has been rendered obsolete by the introduction of interim clearances. DoD Regulation 5200.2-R, "Personnel Security Program," section 3-401, issued January 1987, established criteria for issuing interim Confidential, Secret and Top Secret clearances. The requesting DoD Components for DoD employees or DIS Defense Industrial Security Clearance Office for contractor employees can issue these interim clearances. Interim clearances can be issued within 2.1 to 5.2 calendar days. As a result, the Government's use of interim clearances has eliminated virtually all losses that the delays in processing security clearances caused.

Other automation initiatives DIS considered that could provide monetary savings to the Government include the Personnel Security Questionnaire Electronic Transmission Program, Electronic Storage of Files, Defense Investigative Service Network, SUPRA and the Case Control Management System. DIS has only been able to implement Defense Investigative Service Network Phase 1, which decreased the amount of mail time for investigative case completions from approximately 10 to 6 days. Monetary benefits for SUPRA cannot be determined until DIS has completed all requirements for the system; however, other intangible benefits the system could provide were discussed earlier in the report. The development of the other systems mentioned and their related monetary benefits cannot be determined until DIS establishes its long-range automation goals.

Overall Conclusions. We determined that the contributing factors for DIS' noncompliance with automated information system DoD regulatory guidance included an absence of life-cycle management implementing and milestone approval guidance and procedures, a lack of training and knowledge in life-cycle management methods and controls, and a lack of resources (funding and personnel). DIS had not determined or requested the required personnel to ensure conformance with life-cycle management requirements for the continued development of DIS automated information system initiatives.

We also determined that DIS did not fully comply with the requirements of DoDD 7920.1 for developing SUPRA or Defense Investigative Service Network Phase 1. DIS did not prepare the required planning documents prior to developing these systems. In addition, DIS did not fully comply with the requirements of

DoDD 7920.1 concerning life-cycle management planning prior to the development of the Personnel Security Questionnaire Electronic Transmission Program and the acquisition of the IBM System 38 mini-computer. DIS had not implemented an adequate review and approval process that would provide a mechanism of control in acquiring automated information systems. Furthermore, DIS had not determined its long-range automation goals and the related monetary benefits of its automated information system initiatives. However, at the completion of our audit, DIS officials had begun to develop policy and procedural guidance to implement life-cycle management requirements to include a review and milestone approval procedure for the development and acquisition of automated information systems.

### RECOMMENDATIONS FOR CORRECTIVE ACTION

We recommend that the Director, Defense Investigative Service:

1. Establish review and approval procedures for automated information systems development and acquisition to fully implement life-cycle management requirements outlined in DoD Directive 7920.1, "Life-Cycle Management of Automated Information Systems (AISs)," June 20, 1988.

2. Task the SUPRA Project Manager to determine the functional requirements for each of the five application systems, develop an integration plan for the multiple applications for incorporation into SUPRA, and determine and budget funds, as necessary, to complete the development of SUPRA.

3. Task the Defense Investigative Service Network Project Manager to prepare the required life-cycle management documents to include Mission Need Statement; functional requirements; program resource planning document; implementation plan; and other life-cycle management requirements documents in accordance with DoD Directive 7920.1, prior to the development and implementation of Defense Investigative Service Network Phase 2.

4. Determine if IBM System 38 and Canaan DCS 5800 can be used to meet DIS automated data processing requirements. If not, dispose of the two mini-computers as excess property in accordance with DoD Manual 7950.1M, "Defense Automation Resources Management Manual," September 26, 1988.

5. Determine and request the required personnel to fully implement life-cycle management requirements for the development of future automated information systems.

6. Establish a viable life-cycle management training program to provide DIS automated data processing officials sufficient training and knowledge in life-cycle management methods and practices.

7. Develop management control objectives, control techniques of internal controls, and assess internal controls applicable to the acquisition of automated data processing hardware and software.

#### MANAGEMENT COMMENTS

Management concurred with the finding and with all recommendations and provided estimated completion dates for planned corrective actions. DIS' Information Systems and Planning Directorate has staffed a draft life-cycle management directive to establish a review and approval procedure for developing automated information systems in accordance with DoD regulatory guidance. The required life-cycle management documents are being prepared for the SUPRA data base management system and will be prepared for Defense Investigative Service Network Phase 2 during the planning phase. DIS' Information Systems and Planning Directorate and the Information Systems Center are being functionally realigned to ensure that program managers will be responsible for automated information systems development, and to aid in allocating resources for the development of automated information systems. DIS has also provided training to two automated data processing personnel on life-cycle management procedures. Additional training for other automated data processing personnel is scheduled for FY 1991. Disposal actions are underway for one of the two unused mini-computers and a determination on the IBM System 38 will be made pending the results of a requirements study for DIS automated data processing initiatives. Finally, internal control initiatives, including the development of management control objectives and control techniques, and an internal control tracking system will be completed by September 28, 1990. The complete text of management comments is provided in Appendix B.

**AUTOMATED INFORMATION SYSTEMS WITHIN**  
**DEFENSE INVESTIGATIVE SERVICE**

SUPRA - a proposed corporate data base management system that will integrate all operational investigative and industrial data into an agency-wide data base.

Defense Central Index of Investigation - an index of DoD investigative and criminal files stored throughout DoD. The index includes clearance entries for DoD personnel who have been granted security clearances, and facility records.

Joint Adjudication Clearance System - provides case management for DoD Components that track cases through the adjudication process. The system creates input to a variety of DoD agencies based on agency needs. This system also provides input to the Defense Central Index of Investigation.

Defense Investigations Management System - manages the processing of open investigation and National Agency Checks on DoD personnel. This system is scheduled to be replaced by Case Control Management System.

Case Control Management System - a proposed data base-oriented system that will automate redundant and manual case processing and control procedures. It will also provide investigative and management information in an electronic format. This system is in a system definition phase.

Larsen - the master file that lists contractor facilities with clearances. The master file is used to administer the contractor facility inspection program. Inspections of the facilities are conducted periodically, depending on the type of clearance granted.

Mead - tracks clearance requests for contractor personnel from receipt at Defense Industrial Security Clearance Office through the investigation process at the Personnel Investigations Center, assists in adjudicating clearance requests, and produces Letters of Consent for favorable adjudications. DLA operates the system for Defense Industrial Security Clearance Office through two interservice support agreements at a cost of about \$750,000, annually.

Defense Investigative Service Network - A telecommunication system used to transfer personnel investigation case file information from the field. The costs for this system will be incurred with or without the development of SUPRA.







DEFENSE INVESTIGATIVE SERVICE  
1900 HALF ST., S.W.  
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FEB 28 1990

MEMORANDUM FOR THE INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: Draft Audit Report, Project No. 9ME-0042

Attached please find our comments regarding subject report. Should you have any questions or require additional information, please contact Mr. Mel deGuzman at 475-1059.

*John F. Donnelly*  
JOHN F. DONNELLY  
Director

Attachment

1. Concur. A draft DIS Life-Cycle Management Directive has been staffed to headquarters, regional and field elements. The final DIS Directive will be published by September 28, 1990 and will be compliant with DoD Life-Cycle Management Directives.

2. Concur. The DIS data base manager is preparing an action plan to determine functional requirements and an integration plan for incorporating existing application systems into the SUPRA data base environment. An integration plan with resource requirements will be prepared by September 28, 1990.

3. Concur. Life-cycle management documents compliant to DoD Life-Cycle Management Directives will be prepared for DISNET Phase 2.

4. Concur. The Canaan DCS 5800 has been excessed in accordance with DoD 7950.1-M, dated September 26, 1988. A detailed review of AIS requirements is underway to determine whether the IBM System 38 can be used to support DIS initiatives. A determination is expected by September 28, 1990.

5. Concur. V0200 and D0200 have realigned along DIS functional lines. V0200 program managers have been identified and will be responsible for life-cycle management of all AIS development in the agency. Project plans are being adjusted for future AIS programs; resources will be allocated as needed and the development of future AIS programs will be deferred accordingly.

6. Concur. One representative from V0200 and another from D0200 have attended a DoD Computer Institute sponsored life-cycle management course. A cross-training program is being implemented to ensure V0200 and D0200 program and project managers are cognizant of DoD life-cycle management requirements. Additional training will be planned for next fiscal year.

7. Concur. Management control objectives and control techniques of internal control are being developed and internal controls applicable to the acquisition of ADP hardware and software are being assessed. Internal control tracking systems are also being designed and will be developed, tested and deployed. These initiatives will be completed by September 28, 1990.

### SUMMARY OF BENEFITS RESULTING FROM AUDIT

<u>Recommendation Reference</u>	<u>Description of Benefit</u>	<u>Amount and Type of Benefit</u>
1	Compliance with DoD regulatory guidance for automated information systems development and acquisition.	Nonmonetary.
2	Economy and efficiency to complete the development of an automated information system.	Nonmonetary.
3	Economy and efficiency to complete the development of an automated information system.	Nonmonetary.
4	Economy and efficiency that makes excess automated data processing equipment available to another DoD Component or Government agency.	Undeterminable <sup>1/</sup> Cost Avoidance.
5	Compliance with DoD regulatory guidance for the development and acquisition of future automated information systems.	Nonmonetary.
6	Economy and efficiency to provide automated data processing personnel sufficient training in life-cycle management methods and practices.	Nonmonetary.
7	Internal controls for the development of management control objectives, control techniques, and to assess internal controls applicable to the acquisition of automated data processing hardware and software.	Nonmonetary.

<sup>1/</sup> Monetary benefits cannot be determined until a DoD Component or Government agency has acquired the excessed automated data processing equipment from the Defense Automation Resources Information Center.



## ACTIVITIES VISITED OR CONTACTED

### Office of the Secretary of Defense

Under Secretary of Defense for Policy, Washington, DC  
Comptroller of the Department of Defense, Washington, DC

### Department of the Army

Defense Supply Service, Washington, DC

### Department of the Navy

Chief of Naval Research, Arlington, VA

### Other Defense Agencies

Defense Investigative Service, Washington, DC  
Defense Logistics Agency, Columbus, OH  
Defense Construction Supply Center, Columbus, OH

### Non-Government Activities

International Business Machines, Bethesda, MD  
International Business Machines, Columbus, OH



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## FINAL REPORT DISTRIBUTION

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Under Secretary of Defense for Policy  
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Assistant Secretary of Defense (Public Affairs)

### Department of the Army

Defense Supply Service-Washington

### Defense Agencies

Defense Investigative Service  
Defense Logistics Agency, Columbus, OH  
Defense Construction Supply Center, Columbus, OH

### Non-DoD Activities

Office of Management and Budget

U.S. General Accounting Office,  
NSIAD Technical Information Center

### Congressional Committees:

Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Governmental Affairs  
Senate Ranking Minority Member, Committee on Armed Services  
House Committee on Appropriations  
House Subcommittee on Defense, Committee on Appropriations  
House Ranking Minority Member, Committee on Appropriations  
House Committee on Armed Services  
House Committee on Government Operations  
House Subcommittee on Legislation and National Security,  
Committee on Government Operations